

Claims

1. A spinneret plate (1), for manufacturing a nonwoven
5 fabric, having multiple non-round (3) holes, which are
similar to trilobal or multiarmed holes in particular, for
polymer flow outlet to produce filaments, in which
identical holes (3) being positioned in rows offset to one
10 another, characterized in that
at least one first row (2) has a positional arrangement of
the holes which differs from the positional arrangement of
a second row (7) of rows through rotation of the holes.
2. The spinneret plate (1) according to Claim 1,
15 characterized in that
the spinneret plate (1) has at least two different types
of holes (3).
3. The spinneret plate (1) according to Claim 1 or 2,
20 characterized in that
the spinneret plate (1) is divided into at least two
regions, in which the first region (11) and the second
region (12) each having two or more rows of identical
holes (3).
- 25 4. The spinneret plate (1) according to Claim 3,
characterized in that
the first region (11) has a positional arrangement of the
holes (3) which is rotated by 180° in relation to the
30 positional arrangement of the holes (3) in the second
region (12).
5. The spinneret plate (1) according to one of the preceding
claims,
35 characterized in that

at least the first region (11) and the second region (12) are separated from one another by a gap (14).

- 5 6. The spinneret plate (1) according to Claim 5, characterized in that the gap (14) is the same size or larger than a distance between two rows of identical holes (3).
- 10 7. A spin packet (23) having at least a first spinneret plate (24) and a second spinneret plate (25), in which the first spinneret plate (24) and the second spinneret plate (25) being positioned neighboring one another in the spin packet (23) and the first spinneret plate (24) and the second spinneret plate (25) each having non-round holes, 15 in which the holes in the first spinneret plate (24) being positioned rotated in relation to the holes in the second spinneret plate (25).
- 20 8. The spin packet (23) according to Claim 7, characterized in that the holes in the first spinneret plate (24) have the same dimensioning as the holes of the second spinneret plate (25).
- 25 9. The spin packet (23) according to Claim 7 or 8, characterized in that the first and/or the second spinneret plate (24, 25) have different types of holes.
- 30 10. A spunbonded fabric manufacturing device (28) having a first and a second gas supply for cooling and/or stretching filaments, in which the first and the second gas supplies being positioned parallel to one another and having at least partially diametrically opposite escape 35 openings, having multiple identical spinneret holes, which have a non-round cross-section, a first region of

identically aligned spinneret holes discharging in a blowing region of the first escape opening and a second region of identically aligned spinneret holes discharging in a blowing region of the second escape opening and the first and the second regions being spatially separated from one another, the spinneret holes of the first region being rotated in relation to the spinneret holes of the second region in such a way that a polymer material discharged from the spinneret holes is subjected to identical blowing in the first region and in the second region.

11. A method of cooling and/or stretching a molten polymer material during spunbonded fabric manufacturing, the polymer material being discharged from multiple non-round holes (3), which are similar to trilobal or multiarmed holes in particular, in at least one spinneret plate (1) and forming polymer filaments, a first gas flow upon impinging from a first side and a second gas flow upon impinging from a second side on the polymer material coming out of the holes, characterized in that the first gas flow, at least upon impinging on a first row of polymer filaments, is guided along their shape in mirror image in comparison to guiding of the second gas flow upon impinging on a first row of polymer filaments at its location.

12. The method according to Claim 11, characterized in that the first gas flow and the second gas flow are guided in mirror image to one another over multiple rows of polymer filaments.

13. The method according to Claim 11 or 12, characterized in that

both gas flows are at least partially deflected from a first polymer filament row onto a neighboring second polymer filament row.

- 5 14. The method according to Claim 13, characterized in that both gas flows are deflected onto a second polymer filament row, which follows the first polymer filament row in a blowing direction.